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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,207	11/14/2003	Yuan-Hung Chiu	TS03-442	2547
42717	7590	03/15/2006	EXAMINER	
HAYNES AND BOONE, LLP 901 MAIN STREET, SUITE 3100 DALLAS, TX 75202			TRINH, MICHAEL MANH	
			ART UNIT	PAPER NUMBER
			2822	

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/714,207

Applicant(s)

CHIU ET AL.

Examiner

Michael Trinh

Art Unit

2822

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 02 March 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because:  
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

  
Michael Trinh  
Primary Examiner

Continuation of 3. NOTE: Adding limitations into base claim 1 would require further consideration at least of all other claims 2,5-6,7-10, since scope of each of other claims 2,5-6,7-10 are now different from the scope of each of previously-presented claims 2,5-10, and are now further included the newly added limitations of "wherein the steps (a), (b), and (c) are performed in the same process chamber of said etching tool".

Continuation of 11. does NOT place the application in condition for allowance because of rejections and clear reasons as of record

Applicant remarked that "...the 'Background' section of the patent application is not 'admitted' prior art unless an applicant uses the specific words 'prior art' to expressly state that the information is prior art...MPEP 608.01(c) explains that the 'Background' section of a patent application can include 'prior art or other information'..."

In response, this is noted and found unpersuasive. First, up to this final office rejection, there is no objective evidence in the record presented by Applicant in order to clearly support for applicant's now simply allegation that the "Background" section is not 'admitted' prior art. Second, to the contrary, the "Prior Art" was expressly stated and evidently shown at least in Figure 3 of the present patent application. Accordingly, as a whole, applicant's simply allegation is unfound.

Applicant alleges that "...Applicant's Background mentions performing ashing and etching in the same process chamber, but it does not mention performing a halogen plasma process to clean residue, much less in the same process chamber as the ashing and etching..."

In response, this is noted and found unconvincing. A portion of Applicant's admitted prior art is excerpted herein in that "...ashing method also enables an integrated etch sequence in which several etch steps including the photoresist strip are performed in the same etch chamber or within the same multi-chambered etch tool to increase throughput...". Thus, ASHING and SEVERAL ETCHING STEPS can be carried out by using a same chamber. Moreover, in general, ashing, halogen plasma processing to clean residue, and etching the cleaned opening are all considered as etching steps, in which material and/or residue are removed from the substrate.

Applicant alleges that "...there is no reasonable expectation of success...if it was practical to do so, the entire fabrication of every integrated circuit device would be carried out from start to finish in a single process chamber..."

In response, this is noted and found TOTALLY unconvincing. First, Applicant appears to miss the main point that the combined references prima facie establish and teach at least the claimed invention for performing and carry out these OXYGEN PLASMA ASHING and PLASMA ETCHING STEPS by using the SAME PLASMA CHAMBER. Second, of course, it is not disagreed that a person skilled in the art would not normally have any reasonable expectation to perform a mechanical dicing, deposition, laser metting, bonding, by using the same plasma etching chamber. However, in this case, the combined references clearly establish a prima facie case of obivouness with reasonable expectation of success. Indeed, Chen teaches performing a PLASMA ashing in oxygen to remove the photoresist, and PLASMA etching to etch the contact hole. In the combinaton of references, Yeh teaches after performing an OXYGEN PLASMA ASHING to remove the photoresist, performing a HALOGEN PLASMA ETCHING step to clean residue, and performing a PLASMA ETCHING to the cleaned opening, wherein an inductively-coupled PLASMA chamber are used for ashing and etching. Applicant's admitted prior art further teaches "...ashing method also enables an integrated etch sequence in which several etch steps including the photoresist strip are performed in the same etch chamber or within the same multi-chambered etch tool to increase throughput..."

Therefore, the combined references clearly establish a prima facie case of obivouness with reasonable expectation of success to perform and carry out these plasma ashing and plasma etching by using the same plasma chamber. This is because of the desirability to reduce production and equipment cost and processing time, since only a plasma tool is needed.



Michael Trim  
Primary Examiner